[0190] The 10× strength hECM composition provided the most clinical improvement in symptoms as compared to the vehicle control (evaluations were conducted "blindly" by two cosmetic dermatologists, unrelated to any conduct of the clinical study). Photographic evaluation also indicated a reduction of erythema severity in several patients at days 3, 7 and 14.

[0191] Transepidermal water loss (TEWL) values were also evaluated 3, 7, and 14 days post laser treatment for all 41 subjects. The 10× strength hECM composition provided improvement in stratum corneum barrier function as noted at day 3, and day 7 as compared to the vehicle control. At day 7, the hECM composition is statistically significant at ($p<0.05$) as compared to the vehicle control. This observation is consistent with the fact that there were subjects at day 7 post ablative fractional laser treatment that were demonstrating reepithelialization.

[0192] A double blind, randomized study of topical hECM administration for anti-aging (e.g., wrinkle reduction) was also conducted. The study enrolled 26 subjects between the ages of 40 and 65 years of age. All members of the study group were without prior invasive or minimally invasive surgery, or topical anti-aging treatments within the prior 12 months. Subjects were administered topical hECM compositions twice a day or placebo vehicle for 10 weeks. Endpoints of the study included clinical photography (2 blinded cosmetic dermatologists), comeometer-surface hydration, cutometer-elasticity, punch biopsy, molecular evaluation (Epidermal Genetic Information Retrieval (EGIR)).

[0193] Photographic evaluation of the facial area indicated a generation of lighter pigmentation, smoother skin texture, more evenly toned skin, and a reduction in the appearance of fine wrinkles and lines after 10 weeks of hECM administration.

[0194] Three dimensional profilometry image analysis of silicon replicas of the peri-ocular area was also performed for 22 of the 26 subjects. To perform the analysis a collimated light source was directed at a 25° angle from the plane of the replica. The replica was placed in a holder that fixed the direction of the tab position of the replica so that the replica could be rotated to align the tab direction normal or parallel to the incident light direction. The replicas were taken from the crow's feet area adjacent to each eye with the tab direction pointing toward the ear. The normal sampling orientation provided texture measurements sensitive to the major, expression-induced lines (crow's feet). The parallel sampling orientation provided texture measurements sensitive to the minor, fine lines.

[0195] A double blind, randomized study of topical hECM administration post facial ablative laser surgery was conducted. The study enrolled 49 subjects between the ages of 40 and 60 years of age. All members of the study group were without prior invasive or minimally invasive surgery, or topical anti-aging treatments within the prior 12 months. The laser procedure included full fractional ablative laser procedure, peri-ocular, peri-oral and full face. A Palomar Starluz 550p laser was used (1540-non-ablative and 2940 ablative). Subjects were administered topical hECM compositions twice a day or placebo vehicle for 14 days. End points of the study included clinical photography (3 blinded evaluations-dermatologists), mexameter and subject assessment.

[0196] Photographic evaluation of the facial area at days 1, 3, 5, 7 and 14 post surgery showed a clear reduction in erythema at every time point as compared to placebo.

[0197] The results of the studies indicated several beneficial characteristics of hECM containing topicals. Such benefits included 1) facilitating re-epithelization following resurfacing; 2) reduction of non-ablative and ablative fractional laser resurfacing symptoms (e.g., erythema, edema, crusting, and sensorial discomfort); 3) generating smooth, even textured skin; 4) generating skin moisturization; 5) reducing appearance of fine lines/wrinkles; 6) increasing skin firmness and suppleness; 7) reducing skin dyspigmentation and 8) reducing red, blotchy skin.

[0198] Although the invention has been described with reference to the above examples, it will be understood that modifications and variations are encompassed within the spirit and scope of the invention. Accordingly, the invention is limited only by the following claims.

1. A method of producing a cell culture conditioned medium (CCM) composition comprising:

culturing cells in a suitable growth medium under hypoxic or normoxic conditions comprising 1-5% O_2, wherein the cells produce and secrete a CCM composition, wherein the CCM promotes hair, lash and/or nail growth and/or promoting hair follicle development and/or activation or stimulation on an area of the skin when administered to the region of skin or tissue in need of growth or repair in a subject, and optionally comprising an active agent to promote hair, lash and/or nail growth, thereby producing the composition.

2-3. (canceled)

4. The method of claim **1**, wherein the CCM composition is a soluble fraction.

5-7. (canceled)

8. The method of claim **1**, wherein CCM composition further comprises an active agent and the active agent is a hair growth promoting agent.

9. The method of claim **8**, wherein the hair growth promoting agent is selected from the group consisting of: a potassium channel opener, an ATP-sensitive potassium channel (KATP opener), Minoxidil, diazoxide, or phenytoin, a 5<x-reductase inhibitors, finasteride, dutasteride (e.g., Avodart), turosteride, bexlosteride, izonsteride, epristeride, epigallocatechin, MK-386, azelaic acid, FCE 28260, and SKF 105,1 1 1, ketoconazole, fluconazole, spironolactone, flutamide, diazoxide, 17-alpha-hydroxyprogesterone, 1 1-alpha-hydroxyprogesterone, ketoconazole, RU58841, dutasteride (marketed as Avodart), fluridil, or QLT-7704, an antiandrogen oligonucleotide, a prostaglandin F2a analogs, prostaglandin analogs, a prostaglandin, bimatoprost (e.g., Latisse, Lumigan), latanoprost (trade name Xalatan), travoprost (trade name Travatan), tafluprost, unoprostone, dinoprost (trade name Prostin F2 Alpha), AS604872, BOL303259X, PF3187207, carboprost (trade name Hemabate), kopexil (for example, the product Keranique™), CaC12, botilinum toxin A, adenosine, ketoconazole, DoxoRx, Docetaxel, FK506, GP 1 1046, GP1 151 1, LGD 1331, ICX-TRC, MTS-01, NEOSH1O1, HYG-102440, HYG-410, HYG-420, HYG-430, HYG-440, spironolactone, CB-03-01, RK-023, Abatacept, Viviscal®, MorrF, ASC-J9, NP-619, AS 101, Metron-F-1, PSK 3841, Targretin (e.g., 1% gel), MedinGel, PF3187207, BOL303259X, AS604872, THG1 1331, PF-277343, PF-3004459, Raptiva, caffeine, coffee, a herb (such as, e.g., saw *palmetto, Glycine soja, Panax ginseng,*